

### Claims

What is claimed is:

1. An assembly, comprising:  
a first tubular member comprising external threads;  
a second tubular member comprising internal threads coupled to the external threads of the first tubular member; and  
at least one stress concentrator coupled to at least one of the first and second tubular members adapted to concentrate stresses within the threaded connection between the first tubular member and the second tubular member during a radial expansion of the first and second tubular members.
  
2. An assembly, comprising:  
a first tubular member comprising first threads on an external surface of the first tubular member;  
a second tubular member comprising second threads on an internal surface of the second tubular member;  
wherein the first threads are adapted to threadably engage with the second threads;  
and  
at least one stress concentrator coupled to at least one of the first and second tubular members adapted to concentrate stresses within the threads of the first tubular member and the second tubular member during a radial expansion of the first and second tubular members.
  
3. A method comprising:  
connecting a first tubular member comprising external threads with a second tubular member comprising internal threads;  
providing at least one stress concentrator adapted to concentrate stresses within the interface between the first tubular member and the second tubular member;  
positioning the first tubular member and the second tubular member within a borehole that traverses a subterranean formation; and  
radially expanding and plastically deforming the first tubular member and the second tubular member within the borehole.
  
4. A method comprising:  
connecting a first tubular member comprising first threads on an external surface with a second tubular member comprising second threads on an internal surface;  
providing at least one stress concentrator adapted to concentrate stresses within the

threads of the first tubular member and the second tubular member;  
 positioning the first tubular member and the second tubular member within a borehole  
 that traverses a subterranean formation; and  
 radially expanding and plastically deforming the first tubular member and the second  
 tubular member within the borehole.

5. An apparatus, comprising:  
 a wellbore that traverses a subterranean formation; and  
 a wellbore casing positioned within the wellbore;  
 the wellbore casing comprising:  
     a first tubular member comprising external threads;  
     a second tubular member comprising internal threads coupled to the external  
         threads of the first tubular member; and  
     at least one stress concentrator adapted to concentrate stresses within the  
         threads of the first tubular member and the second tubular member.
  
6. An apparatus, comprising:  
 a wellbore that traverses a subterranean formation; and  
 a wellbore casing positioned within the wellbore;  
 wherein the wellbore casing is positioned within the wellbore by a process comprising:  
     connecting a first tubular member comprising external threads with a second  
         tubular member comprising internal threads;  
     providing at least one stress concentrator adapted to concentrate stresses  
         within the threads of the first tubular member and the second tubular  
         member;  
     positioning the first tubular member and the second tubular member within the  
         wellbore; and  
     radially expanding and plastically deforming the first tubular member and the  
         second tubular member within the wellbore.
  
7. A method comprising:  
 providing a first tubular member and a second tubular member;  
 forming one or more stress concentrators within at least one of the first and the second  
     tubular members adapted to concentrate stresses within the interface between  
     the first tubular member and the second tubular member;  
 connecting the first tubular member comprising first threads on an external surface with  
     the second tubular member comprising second threads on an internal surface;

- and  
radially expanding and plastically deforming the tubular members.
8. A method comprising:  
providing a first tubular member comprising external threads and a second tubular member comprising internal threads  
connecting the external threads of the first tubular member to the internal threads of the second tubular member;  
providing at least one stress concentrator adapted to concentrate stresses within the threaded connection of the first tubular member and the second tubular member;  
radially expanding and plastically deforming the first tubular member and the second tubular member; and  
pressurizing the interiors of the first and second tubular members with a fluidic material;  
wherein, during the radial expansion and plastic deformation, the threaded connection prevented the fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
9. A method comprising:  
providing a first tubular member and a second tubular member comprising internal threads  
coupling the first tubular member to the second tubular member;  
providing at least one stress concentrator adapted to concentrate stresses within the coupling between the first tubular member and the second tubular member;  
radially expanding and plastically deforming the first tubular member and the second tubular member; and  
pressurizing the interiors of the first and second tubular members with a fluidic material;  
wherein, during the radial expansion and plastic deformation, the coupling between the first and second tubular members prevented the fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
10. A method comprising:  
providing a first tubular member comprising external threads and a second tubular member comprising internal threads  
connecting the external threads of the first tubular member to the internal threads of

the second tubular member;  
 providing at least one stress concentrator adapted to concentrate stresses within the threaded connection of the first tubular member and the second tubular member; and  
 radially expanding and plastically deforming the first tubular member and the second tubular member;  
 wherein, during the radial expansion and plastic deformation, the threaded connection prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.

11. A method comprising:  
 providing a first tubular member and a second tubular member comprising internal threads  
 coupling the first tubular member to the second tubular member;  
 providing at least one stress concentrator adapted to concentrate stresses within the coupling between the first tubular member and the second tubular member;  
 and  
 radially expanding and plastically deforming the first tubular member and the second tubular member;  
 wherein, during the radial expansion and plastic deformation, the coupling between the first and second tubular members prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
  
12. An assembly, comprising:  
 a first tubular member comprising external threads;  
 a second tubular member comprising internal threads coupled to the external threads of the first tubular member; and  
 at least one stress concentrator coupled to at least one of the first and second tubular members adapted to concentrate stresses within the threaded connection between the first tubular member and the second tubular member during a radial expansion of the first and second tubular members such that the threaded connection prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
  
13. An assembly, comprising:  
 a first tubular member;  
 a second tubular member coupled to the first tubular member; and

at least one stress concentrator coupled to at least one of the first and second tubular members adapted to concentrate stresses within the interface between the first tubular member and the second tubular member during a radial expansion of the first and second tubular members such that the coupling prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.

14. A method comprising:  
 providing a first tubular member comprising external threads and a second tubular member comprising internal threads;  
 connecting the external threads of the first tubular member to the internal threads of the second tubular member; and  
 radially expanding and plastically deforming the first tubular member and the second tubular member;  
 wherein, during the radial expansion and plastic deformation, the threaded connection prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
15. A method comprising:  
 providing a first tubular member and a second tubular member comprising internal threads;  
 coupling the first tubular member to the second tubular member; and  
 radially expanding and plastically deforming the first tubular member and the second tubular member;  
 wherein, during the radial expansion and plastic deformation, the coupling between the first and second tubular members prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
16. An assembly, comprising:  
 a first tubular member comprising external threads; and  
 a second tubular member comprising internal threads coupled to the external threads of the first tubular member;  
 wherein, during a radial expansion and plastic deformation of the first and second tubular members, the threaded connection prevents fluidic materials from passing therethrough for operating pressures up to about 4000 psi.
17. An assembly, comprising:

a first tubular member; and  
a second tubular member coupled to the first tubular member;  
wherein, during a radial expansion and plastic deformation of the first and second  
tubular members, the coupling prevents fluidic materials from passing  
therethrough for operating pressures up to about 4000 psi.